

FABRICATION SPECS

Board Dimensions	Dimensions
Max Panel Size	21" X 24"
Max Board Size	18" X 20"
Board Thickness Tolerance	+/- 10%
Max warp and twist	75%
Max Rigid Board Thickness	.125"
Min Rigid Board Thickness	.012"
Min Flex Board Thickness	53 microns
Min Core Thickness	.005"
Copper Weight	
Min Copper Weight	1/2 ounce per sq. ft.
Max Copper Weight	5 ounces per sq. ft.
Trace Width and Spacing Inner and outer layers	
1/3 and 1/2 ounce	min .003" line .004" space
1 ounce	min .005" line .005" space
2 ounce	min .005" line .008" space
3 ounce	min .008" line .010" space
4 ounce	min .010" line .013" space
5 ounce	min .010" line .018" space
Line width tolerance	the lesser of +/- 20% or +/- .002"
Hole and Pad	
Min Drilled hole Dia.	.010"
Min Finished hole Dia.	.008"
HDI Capability: Laser Drill	Yes
Finished hole Dia. Tolerance	+/- .003"
Drilled hole location tolerance	+/- .003"
Min Copper thickness in PTH	.0008"
Max aspect ratio	8:1
Min annular ring	.005"
Innerlayer	
Layer to layer registration	+/- .004"
Min dielectric thickness	.003"
Max layer count	16

Soldermask LPI

Soldermask registration tolerance	+/- .003"
Min trace to pad spacing	+/- .006"
Min soldermask dam	.004"
Min soldermask annular ring	.003"
LPI colors available	Green, Red, Blue, Black, and LED White
Via plugging	Yes

Silkscreen Legend

Min line width	.005"
Legend registration tolerance	+/- .006"
Serialization	Yes

Board Profile, Rout, Score, Chamfer

Min space between boards (rout)	.100"
Min. Edge to edge tolerance	.005"
V-Score thickness tolerance	" +/- .004"
V-Score Angles	30, 45, 60 degrees
Chamfer Angles	20, 30, 45 degrees

Electrical Test

Min test point width	.010"
Min test point pitch	.014"

LEAD & HALOGEN FREE PCB

PCB Exposed Metal Finish	RoHS Compliant?
Flash Gold Plating	Yes
Selective gold plating (Hard/Soft Gold)	Yes
ENIG (Electroless Nickel and Immersion Gold)	Yes
Immersion Tin	Yes
Immersion Silver	Yes
OSP (Organic Surface Protection)	Yes
Lead Free HASL	Yes
Carbon Ink	Yes
HASL (Eutectic Solder)	No

Material Substrates

FR-4	Tg 135C
FR-4	Tg 180C
FR-4	Halogen Free (See Below)
CEM	1
CEM	2
CEM	3
Metal Core, Aluminum	.024" min .063" max
Metal Core, Copper	
MCPCB Dielectric	Arlon
MCPCB Dielectric	Berquist
MCPCB Dielectric	Totking
Embedded Capacitance	3M
Flex , Polyimide (Kapton)	Dupont
Rigid-Flex	Dupont

Halogen Free Laminates

Company	Material	Tg
Matsushita	R1566, R1551	1500C
Toshiba	TLC 555	-
Hitachi	BE67G	1450C
Kyocera	TLC552	1650C
ITEQ	IT 140G	1300C
Nelco	N 4000-2EF	1500C
Polyclad	HF541	1400C
Polyclad	HF571	1600C
ISOLA	Duraver 156	1500C
Shengyi	S1155	1350C